

What is claimed is:

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1. A coupling element, comprising:

a male sealing element having a first end, second end, and a longitudinal axis extending between said first end and said second end, wherein said male sealing element has a generally cylindrical shape, wherein said male sealing element defines a fluid passageway therethrough for the transmission of fluid, wherein said male sealing element is slideably coupled to a ferrule, wherein said first end defines a conical sealing surface, wherein said conical sealing surface has a mismatched angle to a female sealing element, wherein said female sealing element defines a complementary conical geometry; and

15 a biasing element disposed between a retaining ring and said ferrule for biasing said

first end into direct abutting contact with said female sealing element with a biasing force sufficient to form a fluid-tight seal between said first end and said female sealing element.

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2. The coupling element of claim 1, wherein said mismatched angle ranges from about 1 to about 2 degrees.

25 3. The coupling element of claim 1, wherein said male sealing element forms a metal to metal fluid-tight seal when mated with a female sealing element.

4. The coupling element of claim 3, wherein said male sealing element's first end deforms when mated with said female sealing element.

30 5. The coupling element of claim 3, wherein said male sealing element is centrally positioned when mated with said female sealing element.

6. The coupling element of claim 1, wherein said biasing element comprises a compression spring.
7. The coupling element of claim 6, wherein said compression spring is a
5 Belleville spring.
8. The coupling element of claim 1, wherein said male sealing element comprises metal.
- 10 9. The coupling element of claim 8, wherein said metal is stainless steel.
10. A method for forming a fluid-tight, high pressure, comprising:
providing a male sealing element having a first end, second end, and a
longitudinal axis extending between said first end and said second end, wherein said
15 male sealing element has a generally cylindrical shape, wherein said male sealing
element defines a fluid passageway therethrough for the transmission of fluid, wherein
said male sealing element is slideably coupled to a ferrule, wherein said first end
defines a conical sealing surface, wherein said conical sealing surface has a
mismatched angle to a female sealing element, wherein said female sealing element
20 defines a complementary conical geometry, and
a biasing element disposed between a retaining ring and said ferrule for biasing said
first end into direct abutting contact with said female sealing element with a biasing
force sufficient to form a fluid-tight seal between said first end and said female
sealing element; and
25 applying a compression force in an axial direction of the male sealing element
toward said female sealing element sufficient to form a fluid-tight, high pressure seal.